

# How PHIN Supports Early Detection

*The local public health perspective...*

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# **DeKalb County BOH**

## **Center for Public Health Preparedness**

- **Created in 1999**
  - **One of three CDC-supported local health departments**
  - **Focus areas:**
    - **Operational readiness**
    - **Surveillance and communications**
    - **Training**
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# **Preparedness planning: challenges for health departments**

- **No perceived role**
  - **Focus on “chem-bio” sites**
  - **Little understanding of germs**
  - **Use of MMRS “equipment” model**
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# The response community

- EMS
  - Infection Control Practitioners
  - Hospitals
  - Medical examiners
  - Police
  - Fire
  - Public Health
  - Emergency Management Agencies
  - CDC
  - DVA
  - FBI
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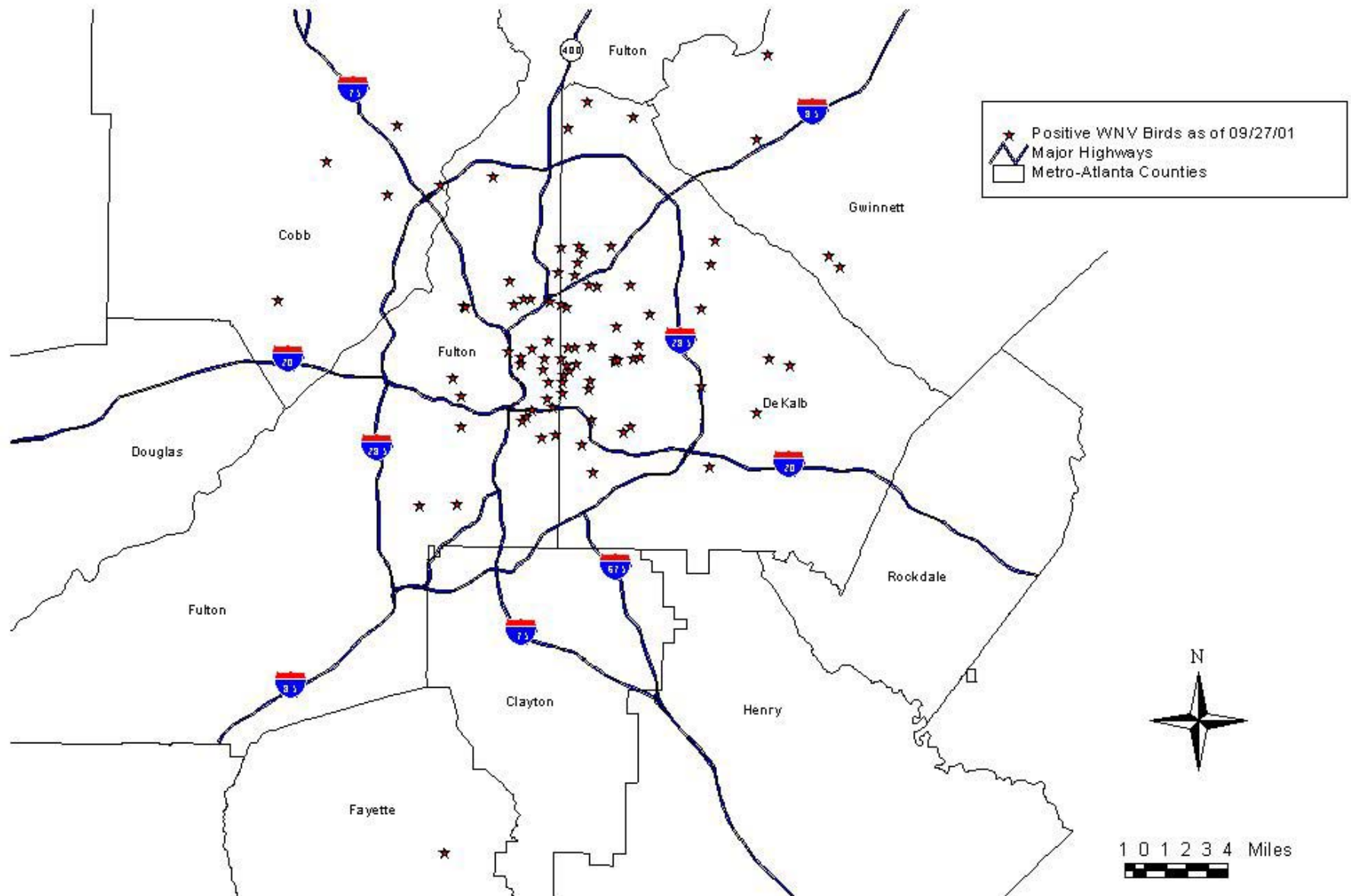
# Emerging threats prepare us

- **West Nile virus, Jan 2000**
  - **Anthrax, Oct 2001**
  - **Smallpox vaccination, Nov 2002**
  - **SARS, March 2003**
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# Public health surveillance at the local level

- Non-categorical funding
  - Personal relationships create foundation
  - Premium on flexibility
  - Funding vulnerable
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# Metropolitan Atlanta West Nile Virus Positive Birds 2001



Source: DeKalb County Board of Health, Health Assessment & Promotion

# **Early detection: challenges at local level**

- **Mosaic of jurisdictions**
  - **Burden upon hospitals**
  - **Insufficient local HD staff**
  - **Non-specific illness symptoms**
  - **Diagnostic tests not performed**
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# **What can PHIN offer locals?**

- **Pan-jurisdictional perspective**
  - **Faster (electronic) communication**
  - **Methods of pattern recognition**
  - **Alternative information sources**
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# How PHIN Supports

## Early Detection

- How early?
- Detection of what?



# What is objective of system?

- Initial detection (vs. “early”)
  - Case ascertainment
  - Monitor patient treatment
  - Coordinate / assess control efforts
  - Enable long-term follow up
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# What is marginal benefit / cost of early detection?

$\triangle$  detection time

$\triangle$  cost

where  $\triangle$  =

(PHIN – “enhanced local capacity”)

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# **“Enhanced local capacity”**

- **Commensurate salaries**
  - **Career development opportunities**
  - **Ongoing IT costs**
  - **Direct “Field Assignee” support**
  - **Spiritual enlightenment**
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# Sensitivity analysis of early detection

- Size of outbreak
- Severity
- Dispersion (across localities)

$$B/C = \frac{\triangle \text{detection time}}{\triangle \text{cost}}$$

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# **Environmental bio-sensors**

- **Value in military settings questionable**
  - **Unproven in civilian settings**
  - **Not connected to local response system**
  - **Need logic model analyses**
  - **False positives will create (politically embarrassing) untoward effects**
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# Summary

## Essential ingredients for local preparedness

- Relationships
  - Dual functionality
  - Practice
  - Customer service
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# Conclusion

**“No chips-and-code solution can match the capabilities of the prepared mind.”**

**“When people connect,  
they can connect the dots.”**

**John Seely Brown, XEROX-PARC**  
**The Social Life of Information**

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# **Center for Public Health Preparedness**

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